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just the
FACTs

This fact sheet is provided as a reference to encourage a greater understanding of the various issues related to managing water in south Florida.

Miami-Dade County Water Supply

Current situation

- Significant growth in population is expected in South Florida, greatly increasing the need for fresh water.
- Under Florida law, the South Florida Water Management District determines how much water local government water utilities and other large users, such as Miami-Dade County, are allowed to withdraw from the Biscayne aquifer through the issuance of consumptive use permits.
- In 2004, Miami-Dade County (Miami-Dade Water & Sewer Department) applied to the South Florida Water Management District for a water use permit for water sufficient to meet its existing and projected demands for the next 20 years. The County is projecting a 25 percent increase to 2.7 million residents by 2025. Miami-Dade's permit application is presently under review. Miami-Dade County has not demonstrated that the withdrawals will not be harmful to the natural resources.
- In 2005, the state legislature mandated through Senate Bills 360 and 444 that new growth in Florida be directly linked to the ability to provide sustain water supplies, water resources, and related natural systems. (*see accompanying fact sheet)*
- Miami-Dade currently pumps approximately 346 million gallons per day (MGD). The county is requesting 450 MGD in its permit application to meet its demands through 2025.
- The county's amended comprehensive land use plan, now undergoing review by the Florida Department of Community Affairs, will need to include a detailed work plan for building supply facilities, including specific water supply projects necessary to meet the projected demands. The county has not identified such projects.
- Prior to the issuance of a building permit, Miami-Dade County and all local governments must confirm with the water supplier that adequate water supplies to serve the new development will be available no later than the anticipated certificate of occupancy.
- **Miami-Dade's growth is critically dependent on development of sustainable alternative water supplies.**
- Miami-Dade County also has Consent Decrees with the Florida Department of Environmental Protection and the U.S. Environmental Protection Agency. The county has been subject to various enforcement actions because of problems with its wastewater systems and its discharges and likely will confront increasing difficulties in permitting new or expanded facilities.

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Miami-Dade County Water Supply

Current situation (cont.)

- Since the 1990s, the District has been working with Miami-Dade County to help identify appropriate alternative water supplies to meet projected demands to meet its future demands and avoid competition with the Everglades and Biscayne Bay freshwater supplies.

- Miami-Dade has made significant improvements in the areas of water conservation and is developing underground storage and recovery projects with the support of the South Florida Water Management District. Despite these efforts, additional alternative sources are needed to prevent harm to the water resources and support projected growth.

Where does Miami-Dade County's fresh water come from?

- The major source of fresh water in Miami-Dade County comes from water that seeps underground into the Biscayne aquifer, located just below the surface of the land. Approximately 346 million gallons per day are withdrawn from the Biscayne aquifer by Miami-Dade Water & Sewer Department primarily for human use. *(see accompanying aquifer illustration and wellfield map).*

- Miami-Dade County's wellfields are sandwiched between the Everglades National Park on the west and Biscayne National Park on the east. The aquifer is recharged primarily by rainfall and water from the Everglades regional system. During the annual dry season, when rainfall levels can't keep the aquifer full, the county's water supply is dependent upon delivery of over 200 million gallons per day from the Everglades regional system. These deliveries can cause the Everglades to become too dry, harming fish and wildlife. During this time, the county's pumpage from the Biscayne aquifer significantly intercepts the amount of flows to Biscayne Bay, causing it to become too salty.

How much water does Miami-Dade County use and where does the water go after it's used?

- Today, Miami-Dade Water & Sewer Department pumps approximately 346 million gallons of fresh water per day. They also treat approximately 295 million gallons per day (MGD) of wastewater. Only 15 MGD of this is reused. The remainder is then disposed of in the ocean or thousands of feet below ground.

- That means that nearly 280 million gallons of water are wasted each day in the face of Miami-Dade's demand for 100 million gallons more water every day to meet projected growth.

Miami-Dade County Water Supply

How much water does Miami-Dade County use and where does the water go after it's used? (cont.)

- In Miami-Dade County, **only 5 percent of this water is recycled and reused** for irrigation and washing down equipment at a wastewater treatment plant; the remainder is disposed of in the ocean or thousands of feet below ground.

- In other counties in the state a much larger percentage of reuse has been used for years to accommodate growth and increased water use. For example, 90 percent of the wastewater in Collier County is reused, while 100 percent is reused in Osceola County. *(see accompanying reuse percentage by county map)*

What are some alternative water supply options?

- For Miami-Dade County to get a water use permit for increased demands, it is necessary to identify alternative water supplies that are necessary to protect the water resources from harm.

- Among the possible sources of alternative water supply are:
    - tapping the Floridan aquifer, which has brackish water that can be treated with reverse osmosis technology
    - recharging the county's canals, and in-turn the Biscayne aquifer, with highly treated reclaimed water
    - increasing the use of aquifer storage and recovery (ASR) systems
    - implementing other reclaimed water measures, such as groundwater recharge, green space irrigation, industrial uses and salinity barriers
    - sea water desalination

- The South Florida Water Management District, in conjunction with the state, has an Alterative Water Supply Grant Program to assist water users in development of alternative water supplies. Approved alternative water supply projects are eligible for millions of dollars of funding from the state and South Florida Water Management District. However, it's the responsibility of Miami-Dade County – and all local governments – to assess, fund, build and implement alternative water supply facilities in order to meet the requirements of the District's consumptive use permitting rules and state growth management laws.